IT Unit 3

Topic 1

# Ch 1 Organisations & Data Management

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**Collecting data online, p 3**

1. **Why do organisations collect data?** Organisations collect data so they gain give access to services to the customers.
2. **Explain the advantages to be gained from collecting data online in terms of both efficiency and effectiveness.** Databases, forms and other means of online data collection can be efficient as it saves time, there is no need for physical forms or collection means. Customers enter their own data, saving the organisation time and money.

Effectiveness is improved with online data input, as the text is clear, easy to read, it also has checks to confirm that the user is entering their correct data.

1. **How are required fields generally indicated on an online form and why do organisations do this?** Required fields are often marked with Astrictks or in bold red font, these are typically the basic methods to show the user that this information is required. Furthermore, forms and other online means cannot proceed or be submitted, without this information being entered.

It helps the organisation gain the correct information that it desires, and ensures that the data can be used correctly.

1. **What is a potential problem with direct input?**  Users can enter false information, fake details and use false identities which do not relate to them- this provides useless information for the companies.
2. **What other advantages are there for businesses in a global economy?** Purchasing goods and services online can open the global market, which once could not have been open. Online businesses can provide them with more customers.
3. **What other services are provided by businesses online?** A wide range of online services such as online virtual tracking, invoices and other services which can help the customer.

**Why users supply data for online transactions, p 5**

1. **Elaborate under each of the following headings:**
   1. **Convenience:** Online services can give convenience to users that perhaps don’t wish to go to the local shops or perhaps they aren’t able to: such as the sick, disabled or elderly. These services can save important time and money of these customers.
   2. **Variety of choice:** Online organisations can offer more goods and services to customers, much more than the local shopping centres offer. Online shopping can offer the same goods as other countries, where their goods perhaps aren’t available in said country.
   3. **Reducing costs:** Shipping and handling of goods can typically be much cheaper, than the fuel and parking costs of going to the local centre. A lot of organisations offer free shipping, which is a way to draw in a lot of customers.

**Techniques used by organisations to acquire data online, p 9**

1. **Prior to web based forms, how did organisations collect data?** They tended asked customers to fill in paper forms, this data later would have to be entered manually into a database. They would have to be manually validated (proof read by a human) or machine validated (checked over by a machine)
2. **What is the role of data acquisition software?** To make online transactions as easy as possible for users, to make sure they are able to know what they brought, which card/payment method they used. But they also provide a final; confirmation to confirm that the payment has been processed.

**User flow diagrams, p 11**

1. **What is the purpose of a user flow diagram?** To document how a user will interact with an online solution.
2. **In using a UFD what is important?** You must always use some type of graphics or drawing software to create it.

**Techniques for efficient and effective online data collection, p 13.**

1. **List some techniques for efficient and effective online data collection:**

Keep your collection short.

Use clear and understanding labels.

Validation of user-entered details.

Appropriate field types

Be mobile friendly and allow the page to be accessed on any device.

Ask relevant and important questions.

1. **What tool is used to design a form prior to creating a data collection screen?** The design of the whole data collection needs to be done, form layout and diagrams- these furthermore need to be annotated to show the security.

**Design Principles, p 15**

1. **To be efficient and effective a data collection form needs to conform to design principles of appearance and functionality; briefly elaborate under each of the following:**
   1. **Appearance:**
      1. **Alignment:** Alignment provides a professional way to get rid of the “the random” squares and unprofessional space. Alignment needs to correct so the user can follow a series of steps correctly.
      2. **Repetition:** Used to unify elements of a layout, this is achieved by repeating patterns, textures and page elements.
      3. **Contrast:** The positioning of elements that are dissimilar beside each other, this achieves contrast. The greater difference between an image/text, alongside their surroundings.
      4. **Space:** The spaced area which separates onscreen objects. Space can be used to minimise the “awkwardness” between objects so it appears they are grouped together. White space has always been used between objects to give them an area to “breathe”
      5. **Balance:** Balance between all the elements of the visual aspect. With symmetrical balance, the visual aspects of an imaginary horizontal or vertical dividing line.
   2. **Functionality:** It is important to develop an understanding of design principles relating to functioning.
      1. **Useability:**
         1. **Robustness:** The testing and validation of a program or service, testing it to its limits to see how much it will go before it will be destroyed. The robustness shows how much it can deal with before it is ruins itself.
         2. **Flexibility:** The solution for the audience, which can be changed and adapt to anything at a fast speed. Flexibility can involve the use of computer initiated programs, which controls the actions and the user must simply reply
         3. **Ease of use:** If a user can control their interaction and the computer must adapt to the users’ needs and what they require. A computer must be able to support All tasks.
      2. **Accessibility**
         1. **Navigation:** Navigation must help users navigate and find content. Ensuring that keyboard-only systems are the ones that are only able to navigate. Absolutely give users the time and chance to read any texts/images on the website.
         2. **Error tolerance:** Help users avoid and correct mistakes with clear instruction on how to fix it and an undo button. But most importantly is to be able to help prevent users from making mistakes in the first place.
         3. **What is the purpose of following the design principles?** To be able to get a clear, understandable and working program/application/website. The design principles are fair rules and guidelines to help bring out the best.

**Data Acquisition software, p 19**

1. **Elaborate on the nature of PHP and ASP server software:** Languages used by servers to acquire data. PHP stands for Hypertext Pre-Processor, this is used to create Dynamic Webpage content such as Google Earth/Maps. PHP is very versatile, as it can operate on many web servers, platforms, and systems.
2. **What are back-end tools?** Back-End tools are statistical tools which enable developers to know what web browsers, location of visitor and device used- to access the content they offer.
3. **Describe the nature of a cookie:** A cookie is a small file that web server stores on the user’s computers. These cookies typically contain information about the user, such as their email address and browsing preference. Cookies are not viruses, as they cannot be executed or run.
4. **What is spyware?**  Spyware is programs and tools which can be used to misuse data gaining files such as cookie, to manipulate user data into information for the hackers gain.

**Protection of rights, p 20**

1. **Why is it important that organisations keep data collected secure?** So, people that intend to use this data to their own advantage such as other companies or hackers, are kept out. Keeping data secure also keeps in genuine and intact.
2. **Elaborate on each of the following:**
   1. **Security protocols**
      1. **TLS, SSL & HTTPS:** Security protocols which are used to provide security for communications on the internet. Secure Sockets Layer (SSL), Transport Layer Security (TLS) and HTTPS are all protocols which enable to internet to be accessed on a secure server.
   2. **Privacy policies:** Organisations must have privacy policies, they have strict rules and regulations about who and why they disclose any information to. As a consumer, it is important to read privacy policies because some organisations may use your personal information in ways you don’t expect.
   3. **Shipping and returns policies:** Many companies have shipping and return policies, these are to assist customers with how to proceed, should the order does not meet their expectations.